

CATEGORY 3, PROBLEM 1

Comparison of solutions - Wang et al

James R. Scott

National Aeronautics and Space Administration
Glenn Research Center
Cleveland, Ohio 44135

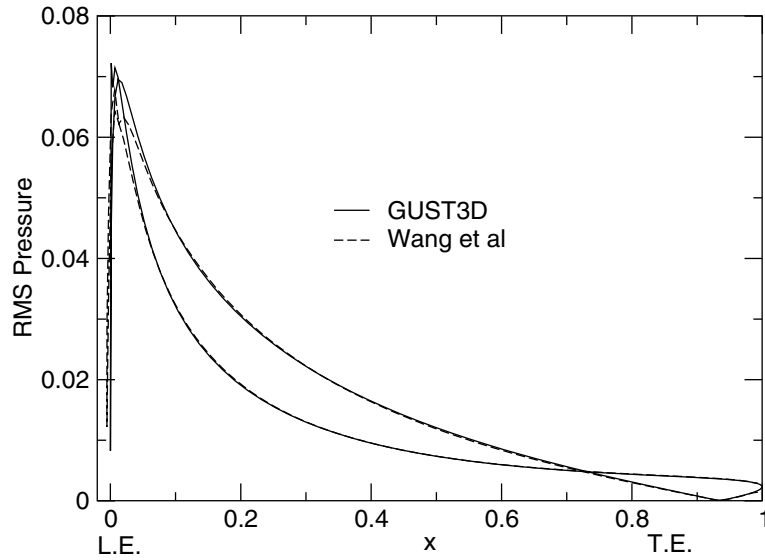


Figure 1 Comparison of RMS pressure on airfoil surface, Case 1, $k_1=k_2=0.1$

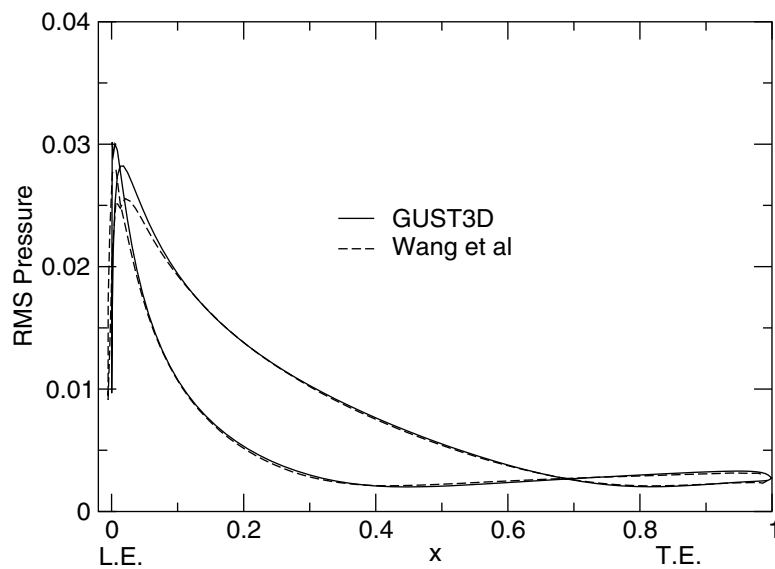


Figure 2 Comparison of RMS pressure on airfoil surface, Case 1, $k_1=k_2=1.0$

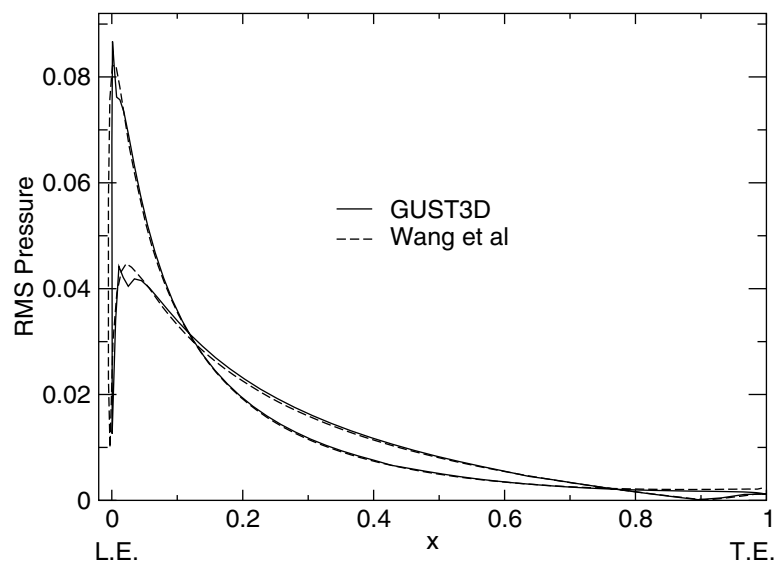


Figure 3 Comparison of RMS pressure on airfoil surface, Case 2, $k_1=k_2=0.1$

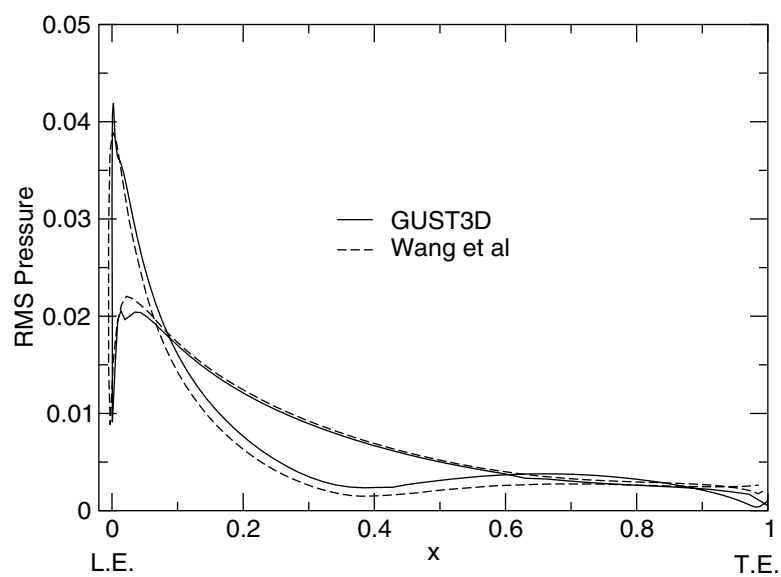


Figure 4 Comparison of RMS pressure on airfoil surface, Case 2, $k_1=k_2=1.0$

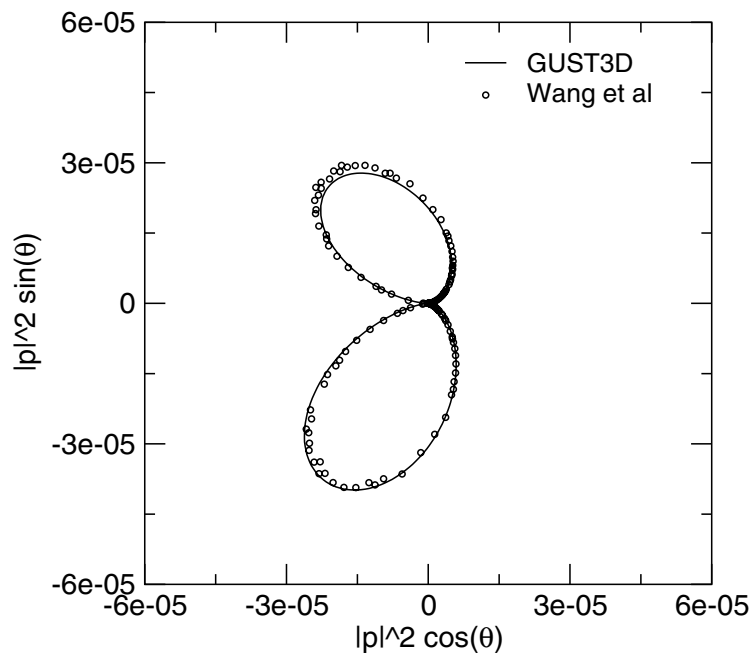


Figure 5.a Comparison of acoustic intensity on circle $R = 1 C$, Case 1, $k_1 = k_2 = 0.1$.

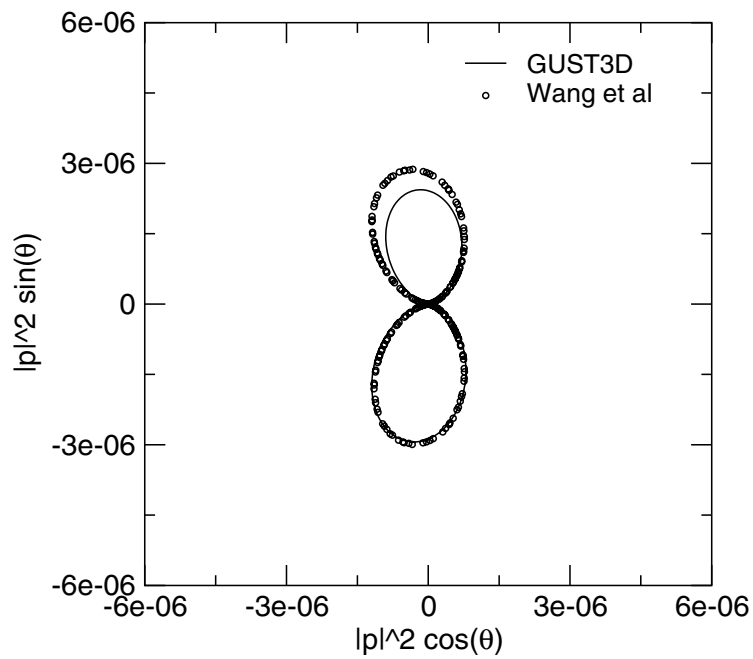


Figure 5.b Comparison of acoustic intensity on circle $R = 4 C$, Case 1, $k_1 = k_2 = 0.1$.

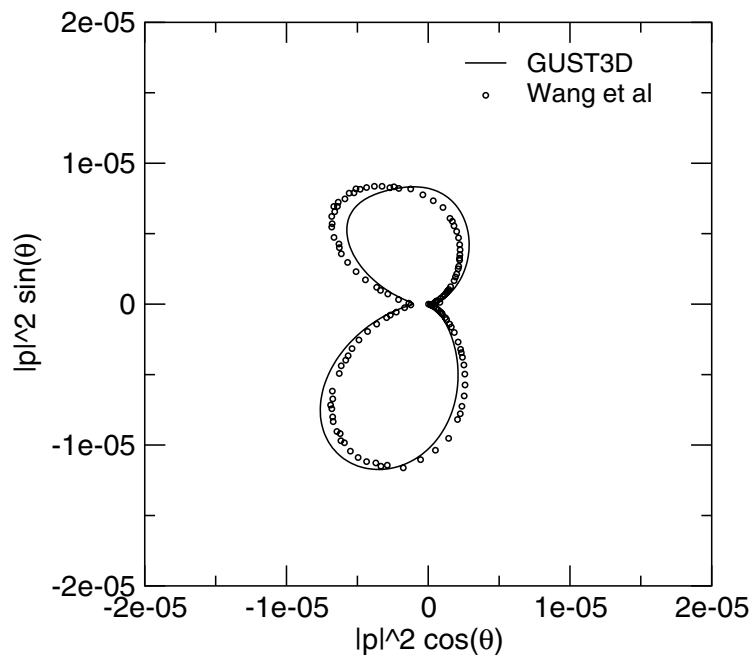


Figure 6.a Comparison of acoustic intensity on circle $R = 1 C$, Case 1, $k_1 = k_2 = 1.0$.

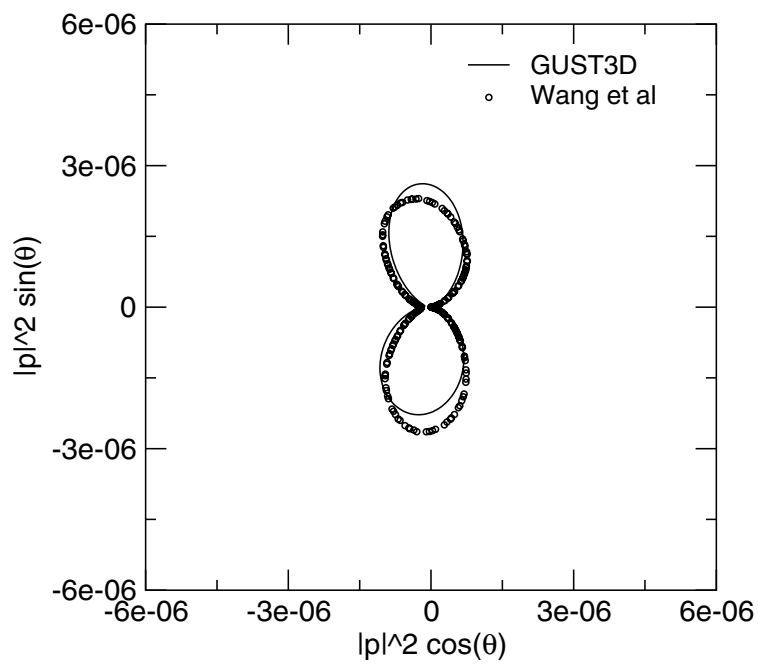


Figure 6.b Comparison of acoustic intensity on circle $R = 4 C$, Case 1, $k_1 = k_2 = 1.0$.

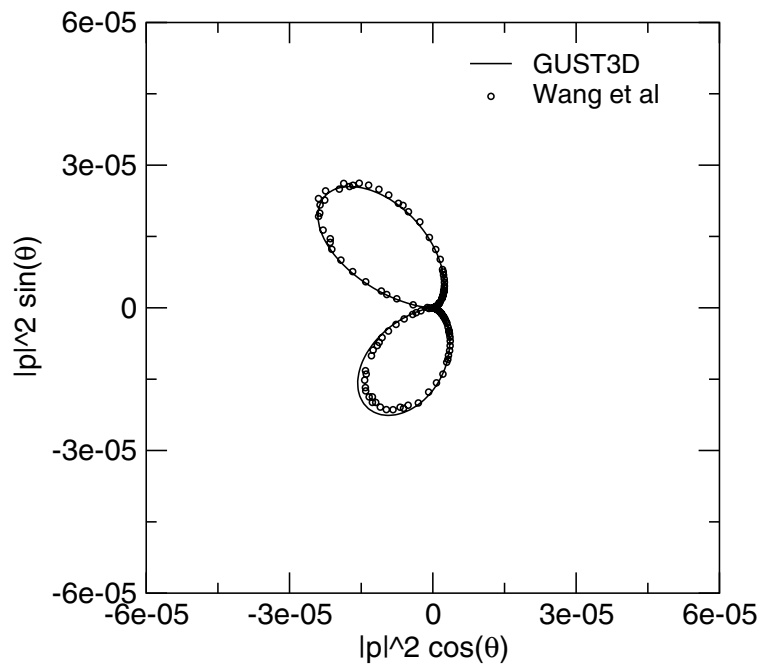


Figure 7.a Comparison of acoustic intensity on circle $R = 1 C$, Case 2, $k_1 = k_2 = 0.1$.

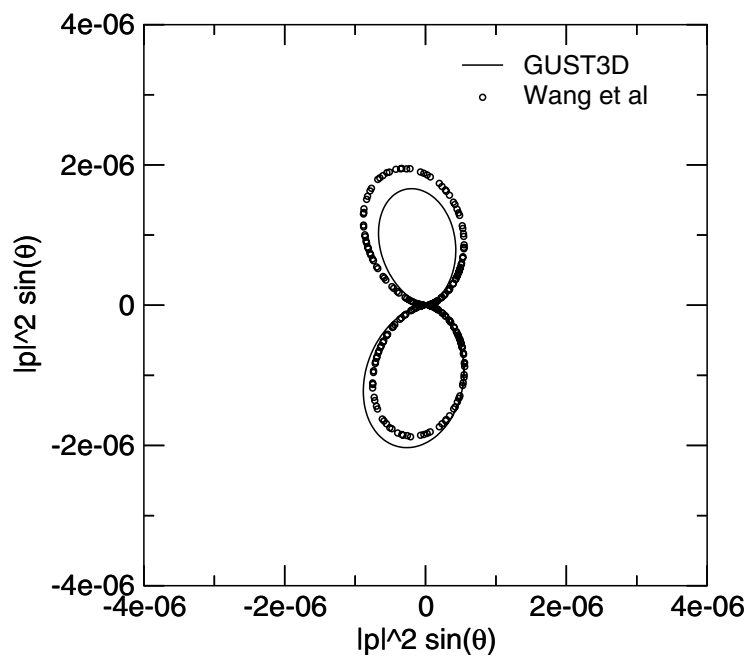


Figure 7.b Comparison of acoustic intensity on circle $R = 4 C$, Case 2, $k_1 = k_2 = 0.1$.

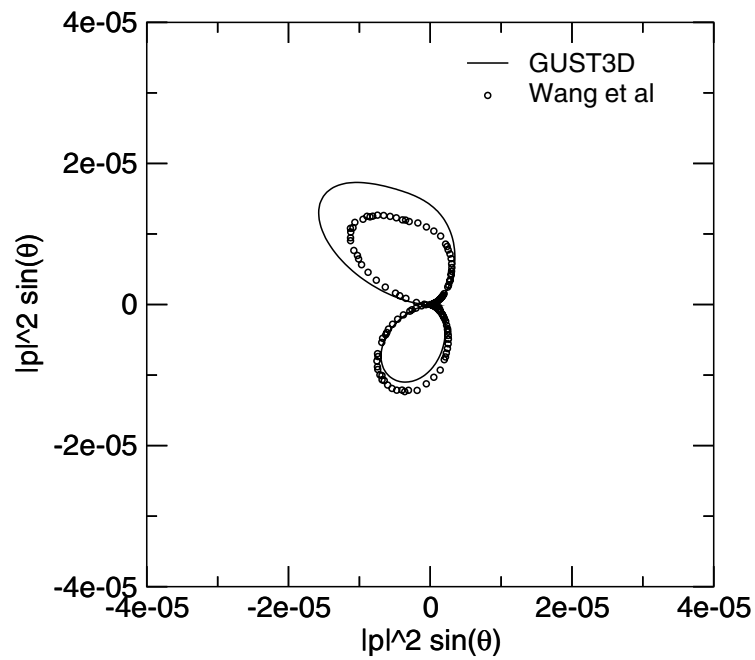


Figure 8.a Comparison of acoustic intensity on circle $R = 1 C$, Case 2, $k_1 = k_2 = 1.0$.

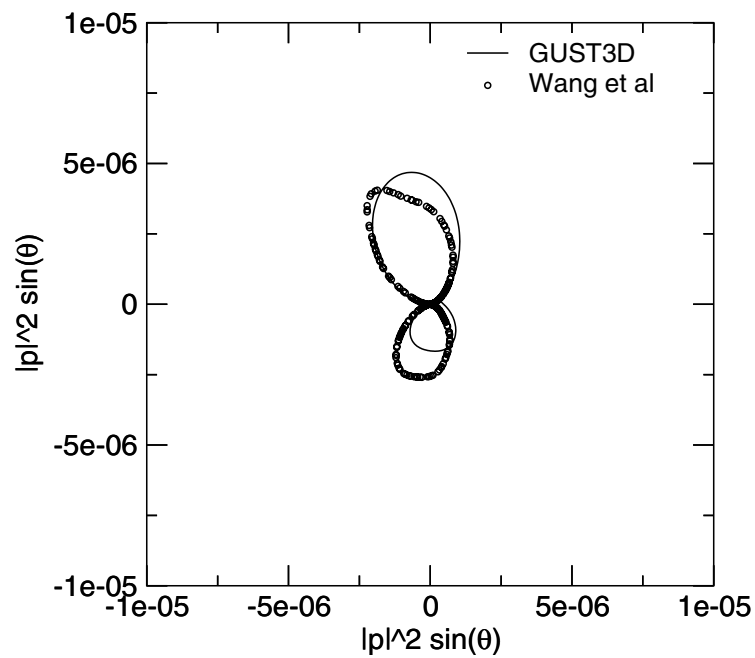


Figure 8.b Comparison of acoustic intensity on circle $R = 4 C$, Case 2, $k_1 = k_2 = 1.0$.

Comparison of solutions - Golubev et al, BASS Code

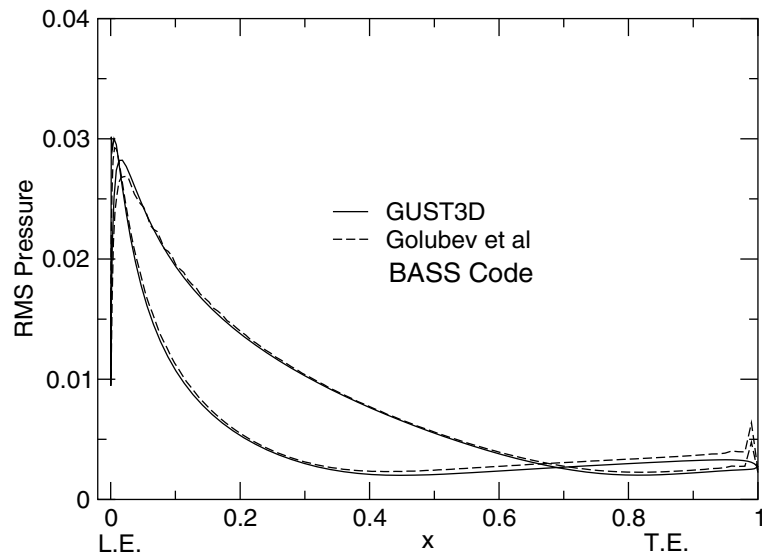


Figure 1 Comparison of RMS pressure on airfoil surface, Case 1, $k_1=k_2=1.0$

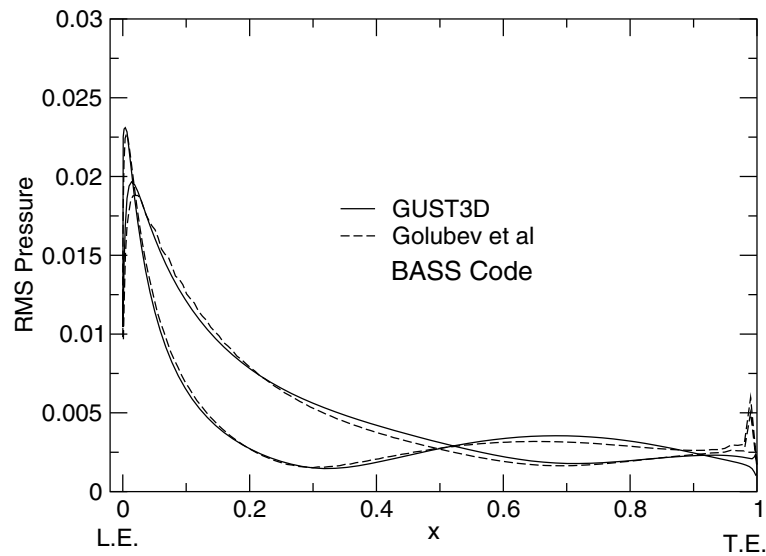


Figure 2 Comparison of RMS pressure on airfoil surface, Case 1, $k_1=k_2=2.0$

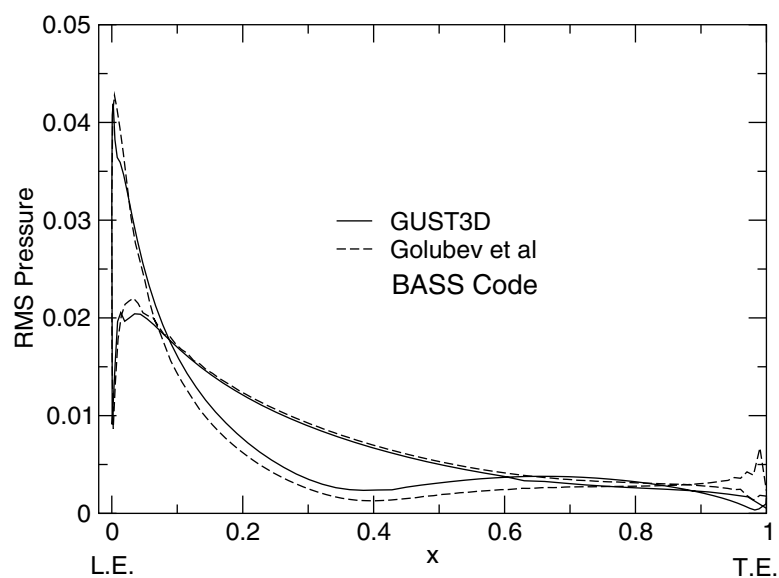


Figure 3 Comparison of RMS pressure on airfoil surface, Case 2, $k_1=k_2=1.0$

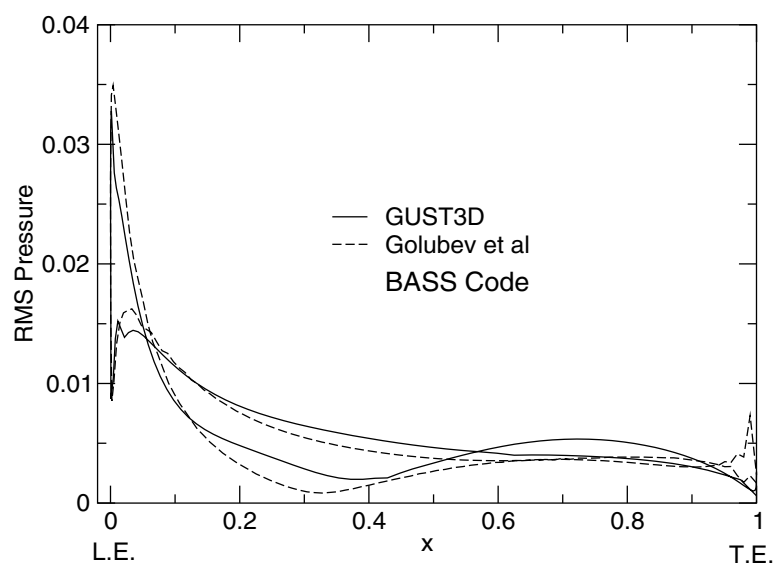


Figure 4 Comparison of RMS pressure on airfoil surface, Case 2, $k_1=k_2=2.0$

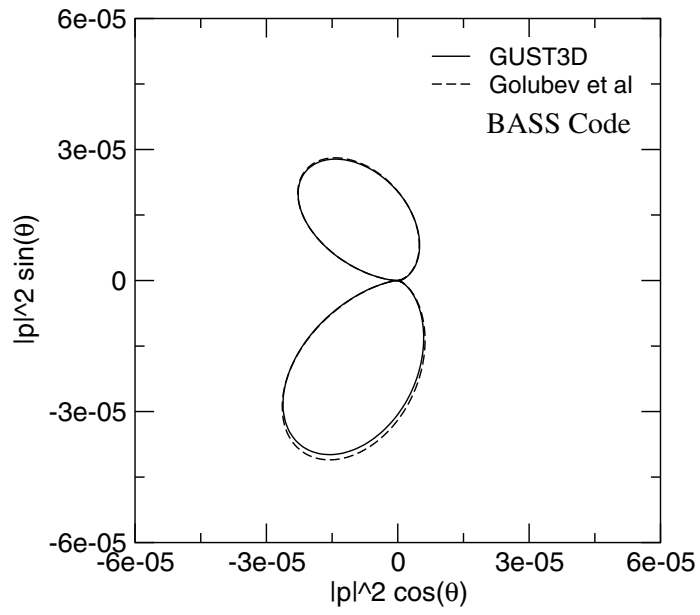


Figure 5.a Comparison of acoustic intensity on circle $R = 1 C$,
Case 1, $k_1 = k_2 = 0.1$

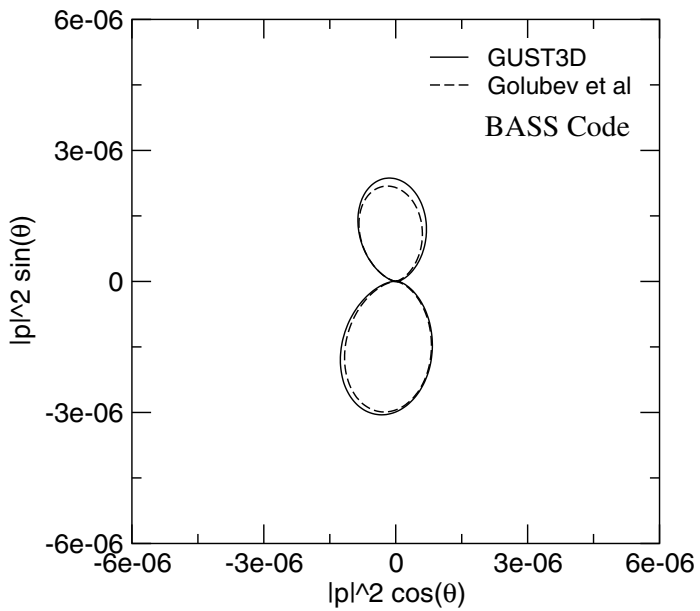


Figure 5.b Comparison of acoustic intensity on circle $R = 4 C$,
Case 1, $k_1 = k_2 = 0.1$

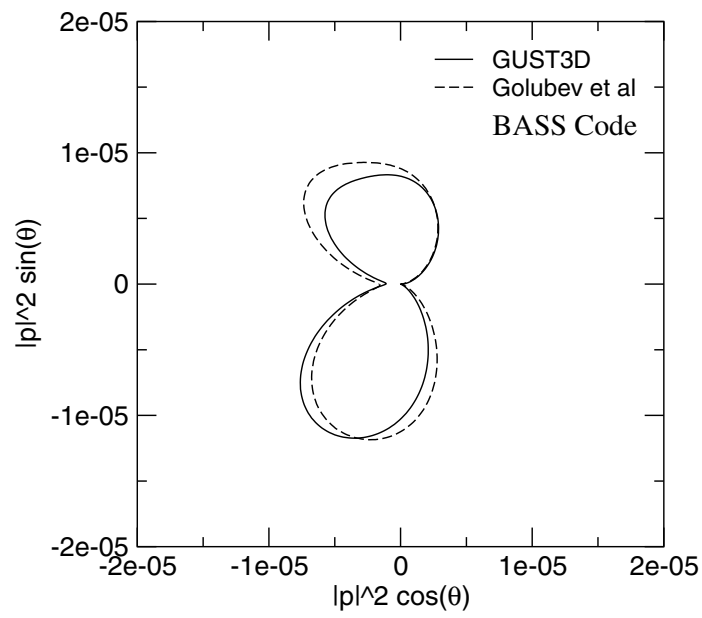


Figure 6.a Comparison of acoustic intensity on circle $R = 1 C$, Case 1, $k_1 = k_2 = 1.0$

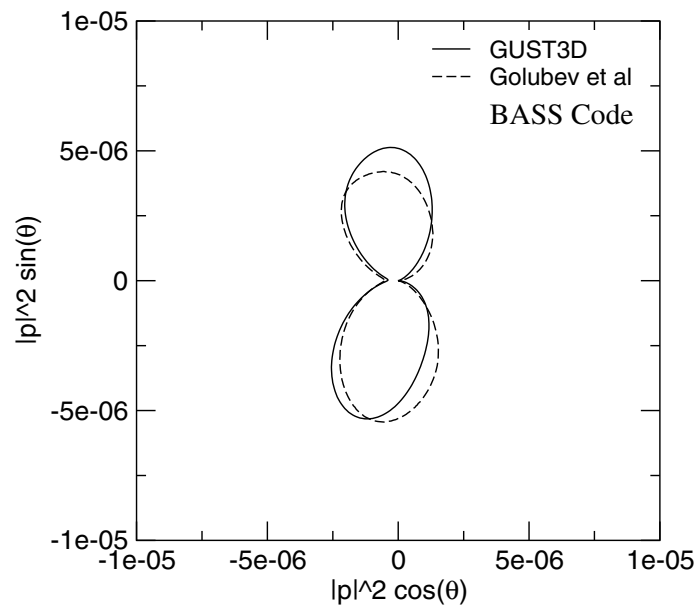


Figure 6.b Comparison of acoustic intensity on circle $R = 2 C$, Case 1, $k_1 = k_2 = 1.0$

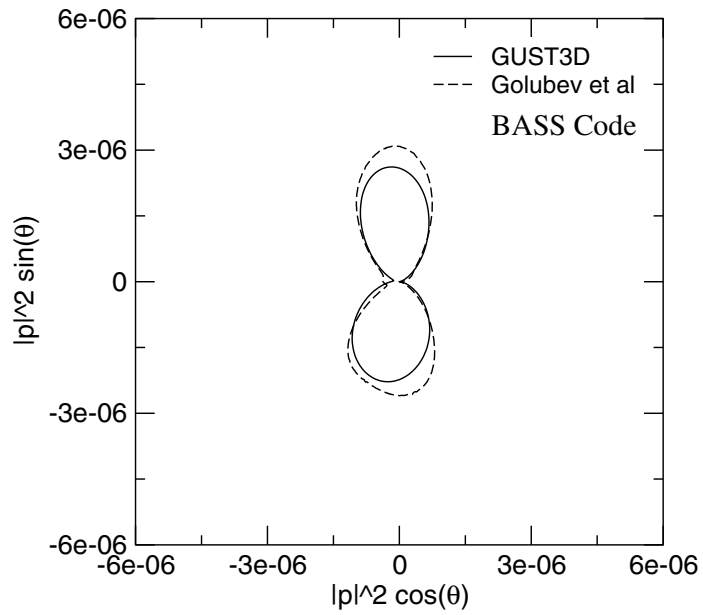


Figure 6.c Comparison of acoustic intensity on circle $R = 4 C$, Case 1, $k_1 = k_2 = 1.0$

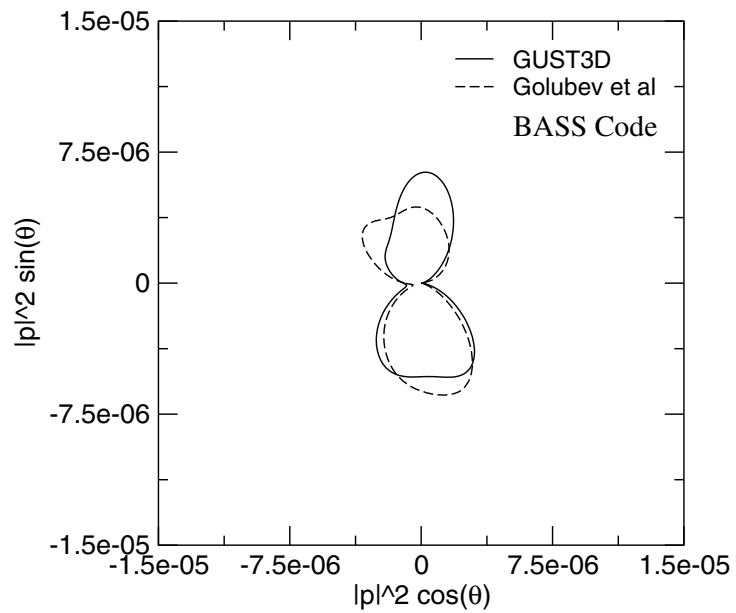


Figure 7.a Comparison of acoustic intensity on circle $R = 1 C$, Case 1, $k_1 = k_2 = 2.0$

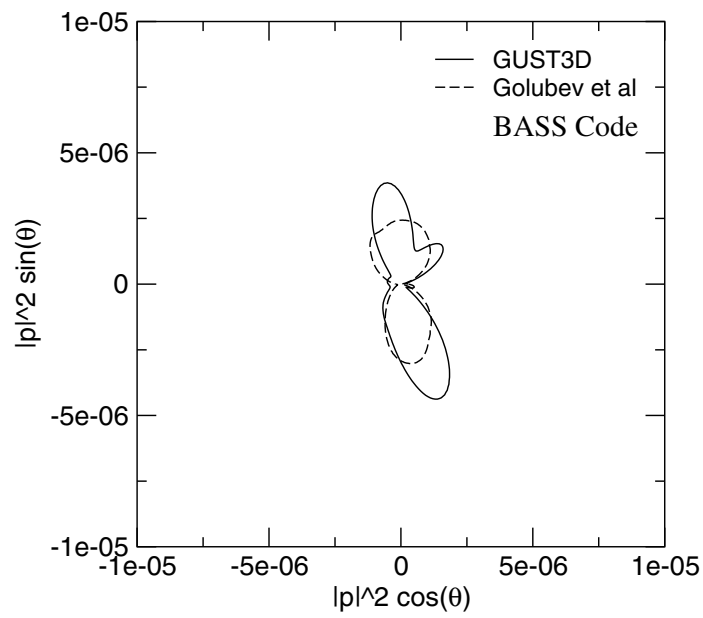


Figure 7.b Comparison of acoustic intensity on circle $R = 2 C$, Case 1, $k_1 = k_2 = 2.0$

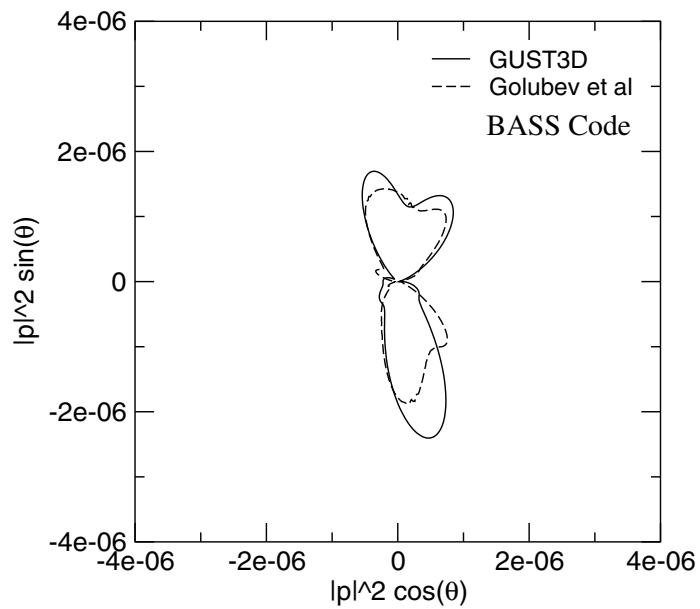


Figure 7.c Comparison of acoustic intensity on circle $R = 4 C$, Case 1, $k_1 = k_2 = 2.0$

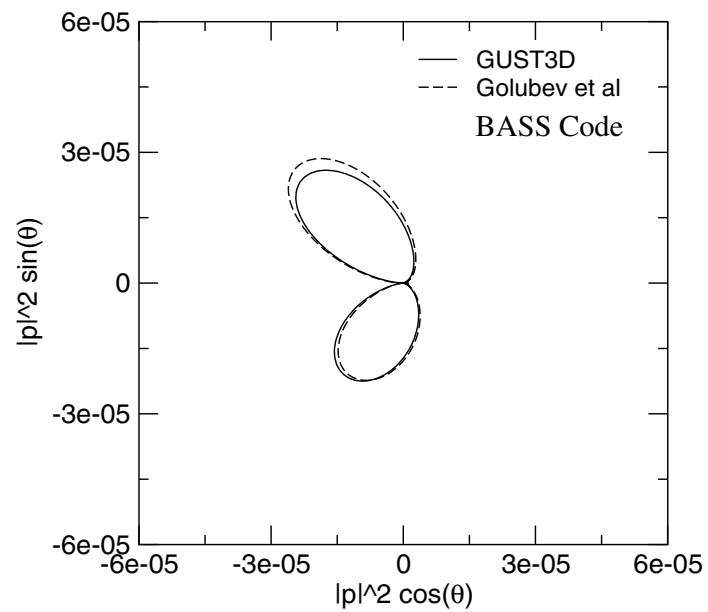


Figure 8.a Comparison of acoustic intensity on circle $R = 1 C$,
Case 2, $k_1 = k_2 = 0.1$

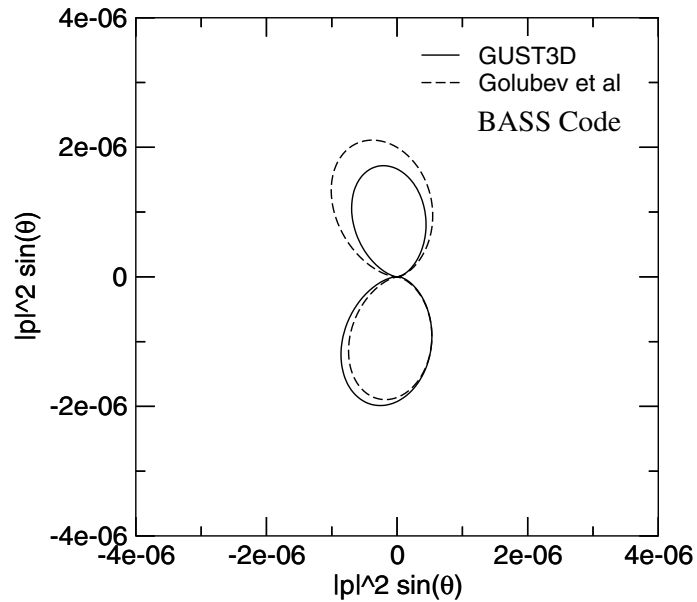


Figure 8.b Comparison of acoustic intensity on circle $R = 4 C$,
Case 2, $k_1 = k_2 = 0.1$

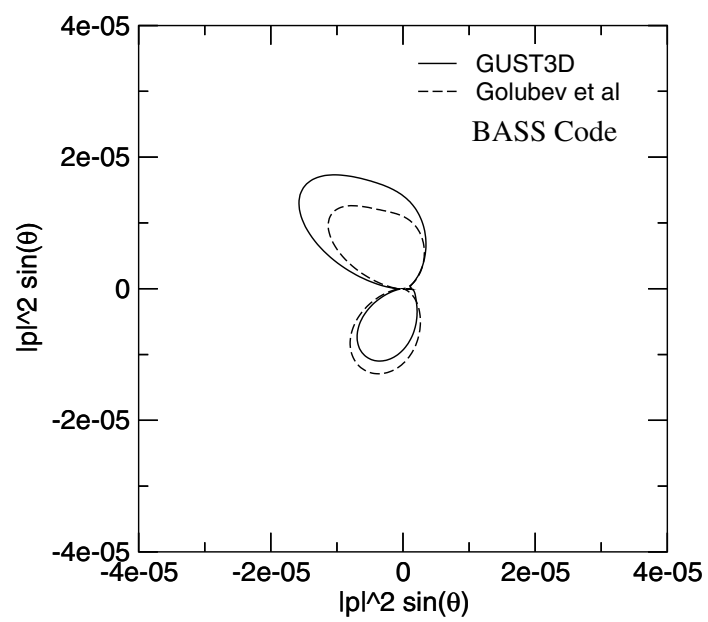


Figure 9.a Comparison of acoustic intensity on circle $R = 1 C$,
Case 2, $k_1 = k_2 = 1.0$

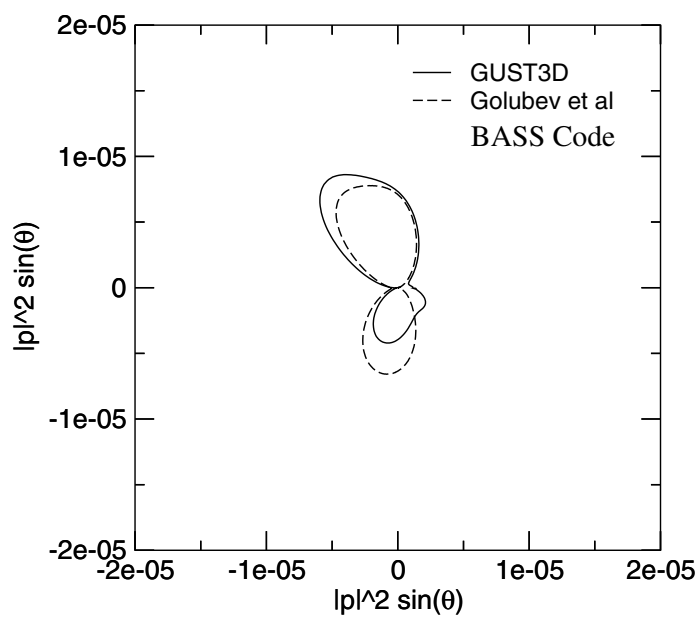


Figure 9.b Comparison of acoustic intensity on circle $R = 2 C$,
Case 2, $k_1 = k_2 = 1.0$

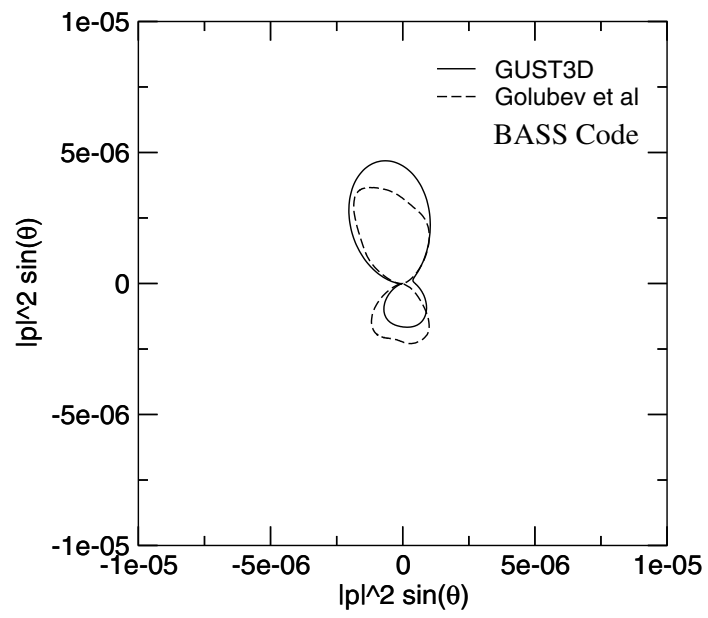


Figure 9.c Comparison of acoustic intensity on circle $R = 4 C$,
Case 2, $k_1 = k_2 = 1.0$

Comparison of solutions - Golubev et al, STMA Code

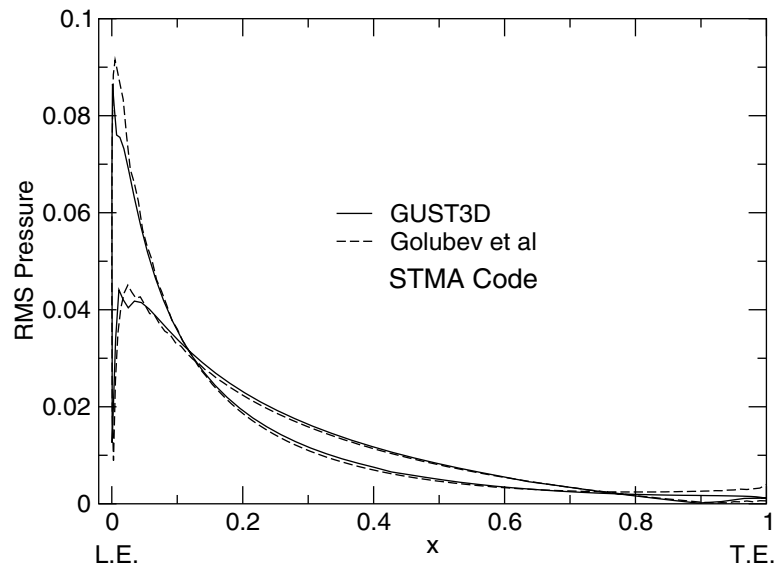


Figure 1 Comparison of RMS pressure on airfoil surface, Case 2, $k_1 = k_2 = 0.1$

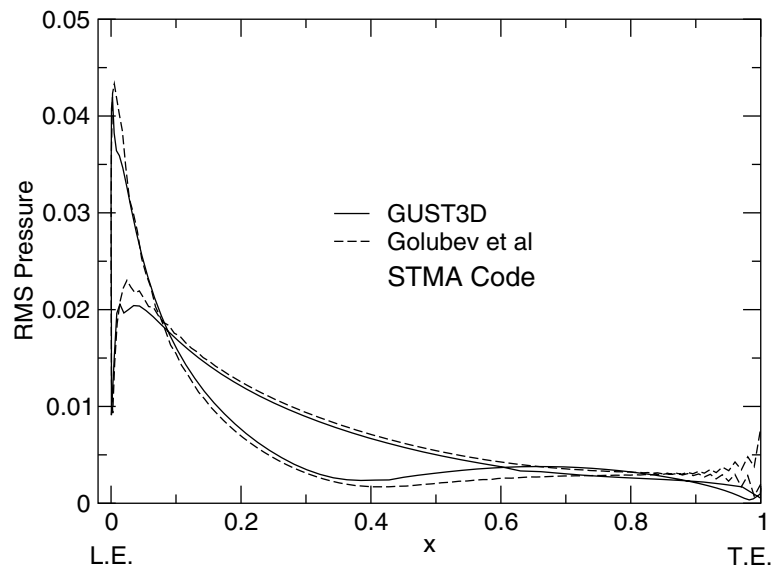


Figure 2 Comparison of RMS pressure on airfoil surface, Case 2, $k_1 = k_2 = 1.0$

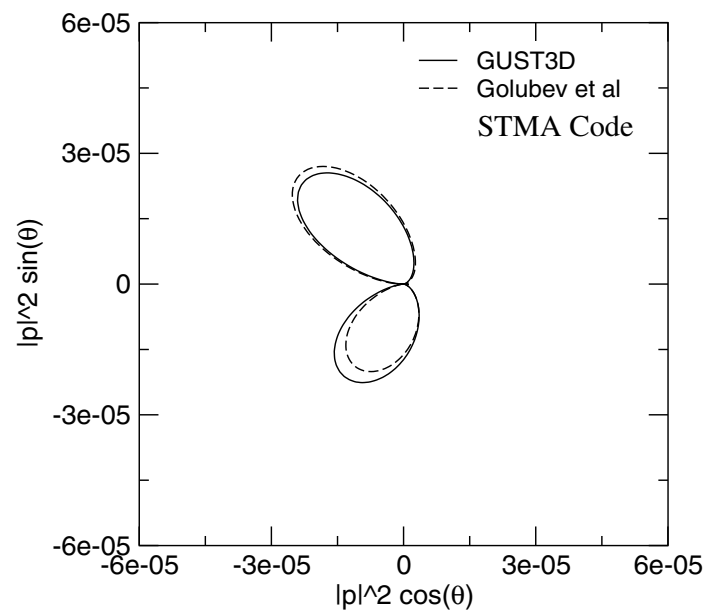


Figure 3.a Comparison of acoustic intensity on circle $R = 1 C$, Case 2, $k_1 = k_2 = 0.1$

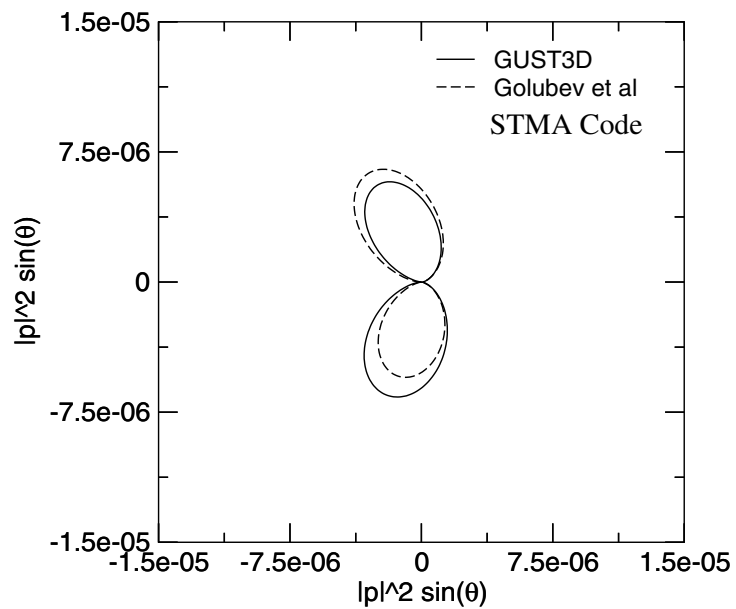


Figure 3.b Comparison of acoustic intensity on circle $R = 2 C$, Case 2, $k_1 = k_2 = 0.1$

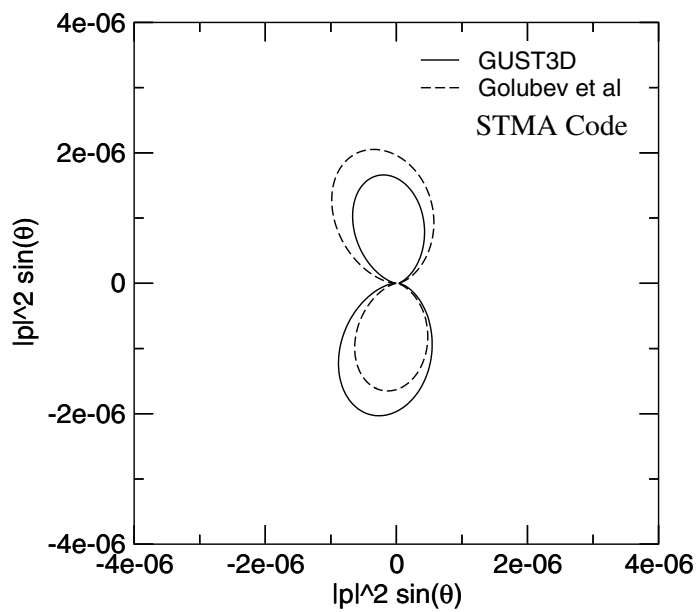


Figure 3.c Comparison of acoustic intensity on circle $R = 4 C$, Case 2, $k_1 = k_2 = 0.1$.

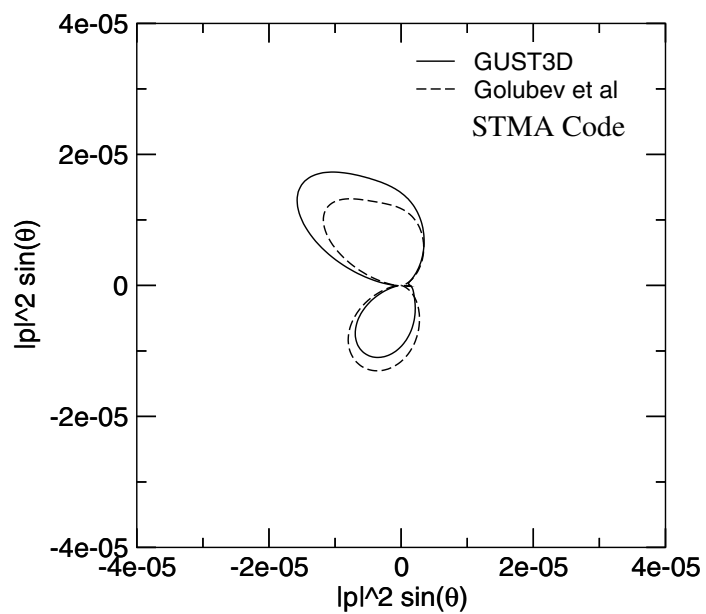


Figure 4.a Comparison of acoustic intensity on circle $R = 1 C$, Case 2, $k_1 = k_2 = 1.0$

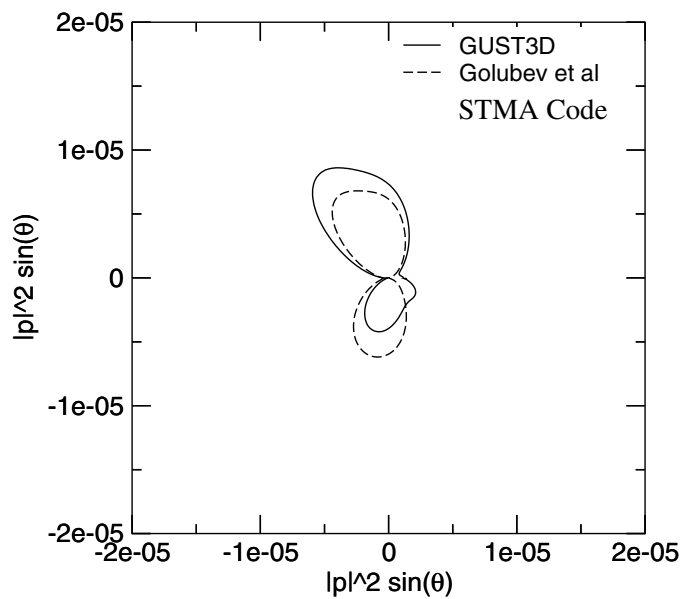


Figure 4.b Comparison of acoustic intensity on circle $R = 2 C$,
Case 2, $k_1 = k_2 = 1.0$

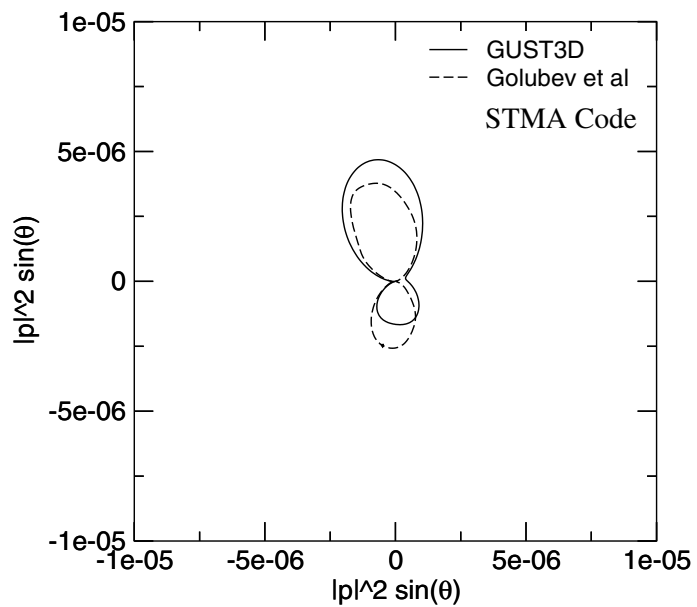


Figure 4.c Comparison of acoustic intensity on circle $R = 4 C$,
Case 2, $k_1 = k_2 = 1.0$